

## CLAIMS

What is claimed is:

1. A package comprising:

a substrate having a plurality of traces in one area of the substrate, each of the plurality of traces having first and second ends, the first ends of the plurality of traces located at a first side of the area of the substrate and second ends of the plurality of traces located at a second side of the area opposite the first side;

a plurality of wires coupling the plurality of traces to form a coil by having each of the plurality of wires coupling a first end of one trace of the plurality of traces to a second end of another of the plurality of traces located adjacent to the one trace.

2. The package of claim 1 wherein the plurality of traces are substantially parallel to each other.
3. The package of claim 1 further comprising a resistor coupled to the coil.
3. The package of claim 1 wherein the traces are wire-bonded to the wires.
4. The package of claim 1 wherein the traces are welded to the wires.
5. The package of claim 1 wherein the traces have a length of 2 mm and a pitch of 1 mm.

6. A coil comprising:

a plurality of traces consecutively positioned in the substrate, each trace having a first end and a second end; and

a plurality of wires, each wire bonded from the second end of one trace to the first end of another trace, the wires and traces together forming a coil.

7. The coil of claim 6 further comprising a resistor coupled to at least one of the plurality of traces.

8. The coil of claim 6 wherein the traces are wire-bonded to the wires.

9. The coil of claim 6 wherein the traces are welded to the wires.

10. The coil of claim 6 wherein the traces have a length of 2 mm and a pitch of 1 mm.

11. A method of creating a coil comprising:

creating a plurality of traces in one area of a substrate, each of the plurality of traces having first and second ends, the first ends of the plurality of traces located at a first side of the area of the substrate and second ends of the plurality of traces located at a second side of the area opposite the first side; and

forming the coil by coupling a plurality of wires to the traces, each of the plurality of wires coupling a first end of one trace of the plurality of traces to a second end of another of the plurality of traces located adjacent to the one trace.

12. The method of claim 11 further comprising coupling a resistor to at least one of the plurality of traces.

13. The method of claim 11 wherein the traces are wire-bonded to the wires.

14. The method of claim 11 wherein the traces are welded to the wires.

15. The method of claim 11 wherein the traces have a length of 2 mm and a pitch of 1 mm.

16. A package comprising:

a substrate;

a coil, the coil including a plurality of loops, each loop including a trace on the substrate and a wire bond coupled to one end of the trace and an end of an adjacent trace, wherein a magnetic field is created when current flows through the coil.

17. A package comprising:

a substrate;

a plurality of traces having first and second ends, the first ends of the plurality of traces located at a first side of the substrate and the second ends of the plurality of traces located at a second side of the substrate opposite to the first side;

a plurality of wires, each wire coupling a first end of one trace to a second end of another trace located adjacent to the one trace to form a loop, with loops completed together forming a coil and linked together by a magnetic flux created in response to current flowing through the loops of the coil.